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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,910	12/21/2001	Carl M. Daniels	CR00234M(72460)	5104

22242 7590 10/21/2004

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EXAMINER

CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,910

Applicant(s)

DANIELSEN ET AL.

Examiner

Dave Czekaj

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-25 is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08182003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Table 2 on page 10 appears to be incomplete.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al. (6078694).

Regarding claims 1 and 12, Takahashi discloses an apparatus that relates to a method for padding an image signal having an arbitrary shape (Takahashi: column 1, lines 7-10). This apparatus comprises “providing a video object plane comprised of object pixels and non-object pixels” (Takahashi: figure 6, column 10, lines 55-67, wherein the object and non-object pixels are the significant and insignificant pixels), “selecting a group of the object pixels and non-object pixels” (Takahashi: column 10, lines 55-67, wherein selecting is the process of

classifying the object and non-object pixels as significant and insignificant pixels), and "for a plurality of non-object pixels, determining a new padding pixel value as a function of at least a neighboring pixel value" (Takahashi: figure 1, wherein new padding values are determined and applied).

4. Claims 1-9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kimoto (6665340).

Regarding claims 1 and 12, Kimoto discloses an apparatus that relates to an image processing system (Kimoto: column 1, lines 9-10). This apparatus comprises "providing a video object plane comprised of object pixels and non-object pixels" (Kimoto: figure 11, wherein the video object plane is illustrated, column 4, lines 24-41, wherein the object pixels are pixels within the padding region and non-object pixels are pixels outside the padding region), "selecting a group of the object pixels and non-object pixels" (Kimoto: column 4, lines 47-65, wherein selecting a group is the process of classifying the pixels as inside, outside, or on the boundary and whether or not the pixels are within the padding region), and "for a plurality of non-object pixels, determining a new padding pixel value as a function of at least a neighboring pixel value" (Kimoto: column 4, lines 37-40, column 7, lines 26-31, wherein the new padding value is determined).

Regarding claims 2-3, Kimoto discloses "some of the non-object pixels are surrounded on at least three sides by object pixels" (Kimoto: figure 11, wherein the non-object pixels are shown to be surrounded by the object pixels).

Regarding claim 4, Kimoto discloses “determining a new padding value includes determining a new padding value as a function of at least a horizontally disposed neighboring pixel value” (Kimoto: figure 7, column 7, lines 26-31, wherein the horizontal neighboring value is the horizontal adjacent value).

Regarding claim 5, Kimoto discloses “determining a new padding value includes determining a new padding value as a function of a vertically disposed neighboring value” (Kimoto: figure 7, column 8, lines 8-16, wherein the vertical neighboring value is the vertical adjacent value).

Regarding claims 6 and 8, Kimoto discloses “determining a new padding value includes determining a new padding value that is equal to the neighboring value when the neighboring value corresponds to an object pixel” (Kimoto: column 7, lines 26-31, wherein the object pixel is the padding region, the new value that is equal to the neighboring value is the process of substituting the padding value into the non-object pixel).

Regarding claim 7, Kimoto discloses “determining a new padding value includes determining a new padding value that is equal to an average of a new padding value determined for opposing but neighboring pixel values” (Kimoto: column 7, lines 41-47, wherein the opposing pixel values are the values on the right and left ends of the padding region which are averaged to determine a new padding value).

Regarding claim 9, Kimoto discloses "motion compensating the plurality of object pixels prior to determining a new padding value" (Kimoto: figure 1, item 103, column 8, lines 34-40, wherein motion compensation is performed).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10-11, and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimoto (6665340) in view of Ito et al (6377309), (hereinafter referred to as "Ito").

Regarding claim 10, note the examiners rejection for claims 1 and 12, and in addition, claim 10 differs from claims 1 and 12 in that claim 10 further requires the object and non-object pixels to be loaded into an array of processing elements. Ito teaches that using an array of processing elements allows an object image and its audio data to be synchronously reproduced (Ito: figures 2 and 4, column 4, lines 41-51, wherein the array of processing elements is the array of encoders). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Kimoto and add the array of processing elements taught by Ito in order to obtain an apparatus that can correctly display video by being able to synchronously reproduce audio and video data.

Regarding claim 11, Ito discloses "motion compensating the pixel values as loaded into the array of processing elements" (Ito: figure 4, wherein the encoders perform motion compensation, the array of processing elements are the array of encoders).

Regarding claim 13, note the examiners rejection for claim 6.

Regarding claim 14, note the examiners rejection for claim 4.

Regarding claim 15, Kimoto discloses "repeatedly determining whether to assign a new padding value based in part of padding values of horizontally neighboring pixels until all non-state pixels have an appropriate horizontally assigned new padding value" (Kimoto: figure 7, column 7, lines 26-31, wherein the horizontal neighboring value is the horizontal adjacent value, column 5, lines 60-65, wherein repeatedly determining is the process of repeating the steps until the completion of the searching of the object and non-object pixels is complete).

Regarding claim 16, note the examiners rejection for claim 15 and in addition Kimoto discloses "detecting when all non-state pixels have an appropriate horizontally assigned new padding value" (Kimoto: figure 4, wherein the processes indicated in figure 4 perform functions until all non-state pixels have a new padding value as indicated by the "loopbacks" in the figure).

Regarding claim 17, Kimoto discloses "determining whether to assign a new padding value comprises repeatedly determining whether to assign a new padding value a predetermined number of repetitions" (Kimoto: column 5, lines

60-65, wherein the predetermined number of repetitions is repeating the steps until the completion of the searching is complete).

Regarding claim 18, Kimoto discloses "following horizontal assignment of new padding values, determining whether to assign a new padding value to non-state pixels as a function of padding values of vertically neighboring pixels" (Kimoto: figure 4, wherein the horizontal padding is performed followed by the vertical padding).

Allowable Subject Matter

7. Claims 19-25 are allowed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US-2004/0028129	02-2004	Nagumo et al.
US-2003/0043907	03-2003	Nakayama, Tadayoshi
US-6259732	07-2001	Lee, Sang-Hoon
US-6690835	02-2004	Brockmeyer et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (703) 305-3418. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CHRIS KELLEY
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